

What is claimed is:

1. A method of diagnosing or aiding in the diagnosis of a cardiovascular disease in a patient, the method comprising comparing:
 - 5 a) the level of a thrombospondin marker in a sample, and
 - b) the normal level of thrombospondin marker in a control non-cardiovascular disease sample,
wherein a significant difference between the level of thrombospondin marker in the patient sample and the normal thrombospondin marker level is an
 - 10 indication that the patient is afflicted with or predisposed to cardiovascular disease.
2. The method of claim 1, wherein the sample is a blood fluid sample.
3. The method of claim 2, wherein the sample is plasma.
- 15 4. The method of claim 1, wherein the sample is obtained from a human subject.
5. The method of claim 1, wherein the thrombospondin marker is selected from the group consisting of a TSP-1 protein, a TSP-2 protein, a TSP-4 protein, a
- 20 fragment of a TSP-1 protein, a fragment of a TSP-2 protein, a fragment of a TSP-4 protein, and combinations thereof.
6. The method of claim 1, wherein the thrombospondin marker is selected from the group consisting of a TSP-1 nucleic acid molecule, a TSP-2 nucleic acid molecule, a TSP-4 nucleic acid molecule, and combinations thereof.
- 25 7. The method of claim 5, wherein the presence of the marker is detected using a reagent which specifically binds with a thrombospondin protein or fragment thereof.
- 30 8. The method of claim 7, wherein the reagent is selected from the group consisting of an antibody, an antibody derivative, and an antibody fragment.

9. A method for predicting the likelihood that an individual will have a cardiovascular disease, the method comprising comparing:

5 a) the level of a thrombospondin marker in a sample, and

b) the normal level of a thrombospondin marker in a control non-cardiovascular disease sample,

wherein a significantly different level of the thrombospondin marker in the sample, relative to the normal level, is an indication that the patient has an increased likelihood of having a cardiovascular disease.

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10. The method of claim 9, wherein the sample is a blood fluid sample.

11. The method of claim 10, wherein the sample is plasma.

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12. The method of claim 9, wherein the sample is obtained from a human subject.

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13. The method of claim 9, wherein the thrombospondin marker is selected from the group consisting of a TSP-1 protein, a TSP-2 protein, a TSP-4 protein, a fragment of a TSP-1 protein, a fragment of a TSP-2 protein, a fragment of a TSP-4 protein, and combinations thereof.

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14. The method of claim 9, wherein the thrombospondin marker is selected from the group consisting of a TSP-1 nucleic acid molecule, a TSP-2 nucleic acid molecule, a TSP-4 nucleic acid molecule, and combinations thereof.

15. The method of claim 14, wherein the presence of the marker is detected using a reagent which specifically binds with a thrombospondin protein or fragment thereof.

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16. The method of claim 15, wherein the reagent is selected from the group consisting of an antibody, an antibody derivative, and an antibody fragment.

17. A method for monitoring the progression of cardiovascular disease in a patient, the method comprising:

- a) detecting in a patient sample at a first point in time, the level of a thrombospondin marker;
- b) repeating step a) at a subsequent point in time; and
- c) comparing the level of thrombospondin marker detected in steps a) and b), and therefrom monitoring the progression of cardiovascular disease in the patient.

10 18. The method of claim 17, wherein between the first point in time and the subsequent point in time the patient has undergone treatment for cardiovascular disease.

15 19. The method of claim 18, wherein the treatment is anticoagulant therapy.

20 20. The method of claim 17, wherein the sample is a blood fluid sample.

21. The method of claim 20, wherein the sample is plasma.

20 22. The method of claim 17, wherein the sample is obtained from a human subject.

25 23. The method of claim 17, wherein the thrombospondin marker is selected from the group consisting of a TSP-1 protein, a TSP-2 protein, a TSP-4 protein, a fragment of a TSP-1 protein, a fragment of a TSP-2 protein, a fragment of a TSP-4 protein, and combinations thereof.

30 24. The method of claim 17, wherein the thrombospondin marker is selected from the group consisting of a TSP-1 nucleic acid molecule, a TSP-2 nucleic acid molecule, a TSP-4 nucleic acid molecule, and combinations thereof.

25. The method of claim 23, wherein the presence of the marker is detected using a reagent which specifically binds with a thrombospondin protein or fragment thereof.

5 26. The method of claim 25, wherein the reagent is selected from the group consisting of an antibody, an antibody derivative, and an antibody fragment.

10 27. A method of assessing the efficacy of a compound for inhibiting cardiovascular disease in a patient, the method comprising comparing:

a) the level of a thrombospondin marker in a first sample obtained from the patient and maintained in the presence of the compound, and
b) the level of a thrombospondin marker in a second sample obtained from the patient and maintained in the absence of the compound,

15 wherein a significantly enhanced level of a thrombospondin marker in the first sample, relative to the second sample, is an indication that the compound is efficacious for inhibiting cardiovascular disease in the patient.

20 28. The method of claim 27, wherein the sample is a blood fluid sample.

29. The method of claim 28, wherein the sample is plasma.

30. The method of claim 27, wherein the sample is obtained from a human subject.

25 31. The method of claim 27, wherein the thrombospondin marker is selected from the group consisting of a TSP-1 protein, a TSP-2 protein, a TSP-4 protein, a fragment of a TSP-1 protein, a fragment of a TSP-2 protein, a fragment of a TSP-4 protein, and combinations thereof.

32. The method of claim 27, wherein the thrombospondin marker is selected from the group consisting of a TSP-1 nucleic acid molecule, a TSP-2 nucleic acid molecule, a TSP-4 nucleic acid molecule, and combinations thereof.

5 33. The method of claim 31, wherein the presence of the marker is detected using a reagent which specifically binds with a thrombospondin protein or fragment thereof.

10 34. The method of claim 33, wherein the reagent is selected from the group consisting of an antibody, an antibody derivative, and an antibody fragment.

15 35. The method of claim 27, wherein the first and second samples are portions of a single sample obtained from the subject.

15 36. The method of claim 27, wherein the first and second samples are portions of pooled samples obtained from the subject.

20 37. A method of assessing the efficacy of a therapy for inhibiting cardiovascular disease in a patient, the method comprising comparing:

a) the level of a thrombospondin marker in the first sample obtained from the patient prior to providing at least a portion of the therapy to the patient, and
b) the level of a thrombospondin marker in a second sample obtained from the patient following provision of the portion of the therapy,

25 wherein a significantly enhanced the level of a thrombospondin marker in the second sample, relative to the first sample, is an indication that the therapy is efficacious for inhibiting cardiovascular disease in the patient.

38. The method of claim 37, wherein the therapy is anticoagulant therapy.

30 39. The method of claim 37, wherein the sample is a blood fluid sample.

40. The method of claim 39, wherein the sample is plasma.

41. The method of claim 37, wherein the sample is obtained from a human subject.

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42. The method of claim 37, wherein the thrombospondin marker is selected from the group consisting of a TSP-1 protein, a TSP-2 protein, a TSP-4 protein, a fragment of a TSP-1 protein, a fragment of a TSP-2 protein, a fragment of a TSP-4 protein, and combinations thereof.

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43. The method of claim 37, wherein the thrombospondin marker is selected from the group consisting of a TSP-1 nucleic acid molecule, a TSP-2 nucleic acid molecule, a TSP-4 nucleic acid molecule, and combinations thereof.

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44. The method of claim 42, wherein the presence of the marker is detected using a reagent which specifically binds with a thrombospondin protein or fragments thereof.

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45. The method of claim 44, wherein the reagent is selected from the group consisting of an antibody, an antibody derivative, and an antibody fragment.

46. A kit for assessing whether a patient is afflicted with or predisposed to cardiovascular disease, the kit comprising reagents for assessing the level of a thrombospondin marker.

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47. The kit of claim 46 wherein the thrombospondin marker is selected from the group consisting of a TSP-1 protein, a TSP-2 protein, a TSP-4 protein, a fragment of a TSP-1 protein, a fragment of a TSP-2 protein, a fragment of a TSP-4 protein, and combinations thereof.

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48. The kit of claim 46 wherein the thrombospondin marker is selected from the group consisting of a TSP-1 nucleic acid molecule, a TSP-2 nucleic acid molecule, a TSP-4 nucleic acid molecule, and combinations thereof.

5 49. A kit for assessing the suitability of a compound for inhibiting cardiovascular disease in a patient, the kit comprising:

- a) the compound; and
- b) a reagent for assessing expression of a thrombospondin marker.

10 50. The kit of claim 49, wherein the thrombospondin marker is selected from the group consisting of a TSP-1 protein, a TSP-2 protein, a TSP-4 protein, a fragment of a TSP-1 protein, a fragment of a TSP-2 protein, a fragment of a TSP-4 protein, and combinations thereof.

15 51. The kit of claim 49, wherein the thrombospondin marker is selected from the group consisting of a TSP-1 nucleic acid molecule, a TSP-2 nucleic acid molecule, a TSP-4 nucleic acid molecule, and combinations thereof.

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